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ABSTRACT

This paper describes the learning center approach of the preschool and kindergarten programs at the Maryland School for the Blind. Units are presented in monthly themes suggested by the local school curriculum, and this thematic approach is incorporated into the specific learning centers. The classroom is divided into six main learning areas: (1) a language area which allows children to come together as a group to participate in morning circle time and discuss the theme for the month; (2) the writing center, which gives students opportunities to create and explore the joys of self-expression; (3) the play center, which enables children to play with battery-operated toys or games related to the theme via adaptive switches; (4) the discovery center, which provides experiences using all of the senses; (5) the reading/listening center, which provides access to books for enjoyment and educational purposes; and (6) the vision center, which is designed to stimulate the students' visual development. The paper lists materials that teachers should have in each center, sample thematic units, multi-sensory activities, and accommodations for children with specific special needs. Directions for creating a battery system to adapt a battery-powered device for switch accessibility are also provided. (CR)

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ED 460 561

Monthly Themes and Learning Centers for Young Children with Visual and Multiple Impairments

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Monthly Themes and Learning Centers
for Young Children With Visual and Multiple Impairments

The pre-school and kindergarten programs at The Maryland School for the Blind are learning center based. Units are presented in monthly themes, suggested by the local school curriculum. This thematic approach is incorporated into the specific learning centers. With the aid of adaptive switches and devices, our children with visual impairments and severe-profound handicaps are able to access their environment and become active learners.

The classroom is divided into six main learning areas : language, writing, play, discovery, reading/ listening and vision. All learning centers are labeled by object cues, picture, print, braille and sign.

The goal of the **language center** is to allow the children to come together as a group to participate in morning circle time and discuss the theme for the month. The children respond to questions and share ideas using their augmentative communication systems.

The **writing center** gives the students opportunities to create and explore the joys of self-expression. The children develop experience books based on monthly theme-related field trips, using a computerized program and textured touchpad.

The goal of the **play center** is to enable the children to play with battery-operated toys or games related to the theme via adaptive switches. The children learn basic positional concepts through imaginary play.

The **discovery center** provides experiences using all the senses. Students have "hands on" experiences with real items being discussed in the curricular themes.

The goal of the **reading/listening center** is to provide the children access to books for enjoyment and educational purposes. The children have opportunities to tell theme-related stories using props, pre-recorded voice-output devices and tape recorders.

The goal of the **vision center** is to stimulate the students' visual development, such as in fixation, localization, tracking and attending activities. Students explore flourescent objects presented in a darkened vision tent or a blacklight box, and explore opaque manipulatives on a light box table.

In addition, the children have opportunities during the month for art and cooking activities related to the theme, using adapted art supplies and environmental control units. They also participate in monthly field trips into the local community, again reinforcing the thematic unit for the month.

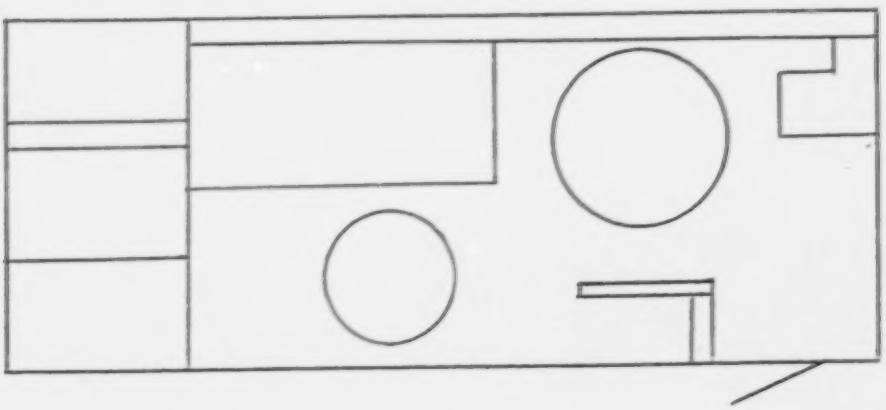
Prior to the beginning of the school year, design the **physical set-up** of your classroom. To provide structure and continuity for your children with visual and multiple impairments, keep the room arrangement the same for the duration of the school year.

Divide the room into distinct learning centers.

-Arrange centers in corners of the room, opening into a central group area.
-Provide natural landmarks (classroom door, window, sink) and consistent furniture (teacher's desk, bookcase) as squaring-off starting points to teach room familiarization for any ambulatory students.
-Define clear boundaries of learning centers by using furniture, cubbies, room dividers, area rugs, etc.
-Label centers with tactile/object cues, pictures, print and/or braille.
-Remember potential distractibility of light/glare, placing writing center (i.e.,computers, desks) away from or to the side of windows.
-Separate quiet, sit down learning areas (reading center) from louder, active ones (play).
-Provide adequate amount of space in centers for children in wheelchairs, adaptive positioning equipment and materials.
-Keep areas uncluttered with unnecessary furniture or materials.
-Use carpeting in the play center, if at all possible.
-Place art/cooking areas near sink for natural clean-ups.

Store materials in the center where they are used in an organized manner.

-Label shelves, drawers and containers of contents with objects, pictures/textured outlines.
-Store similar items together.
-Store sets of different sized materials so that the size is identifiable by sight or touch.
-Place stored materials within each area for easy accessibility by children.
-Place material bins within sight and reach of students.
-Store books in forward-facing racks/bookcase.



My classroom was fortunate to receive a state-wide grant in 1998 from The Maryland State Department of Education. The following list of materials are items we purchased to develop our learning stations.

Language Center

- Talking clock
- Big Mack voice-output devices
- Name tags in print and texture/braille
- Interactive daily schedule and calendar
- Tape/CD player
- All-Turn-It spinner
- Felt boards with large interactive pieces
- Language master and sentence strips

Writing Center

- Macintosh computer
- Intellikeys accessible keyboard/touchpad
- Adaptive jelly bean switch
- Software appropriate to levels of students
- Writing adaptations, such as
  - -reflective/puffy/scratch and sniff stickers
  - -handled stamps and stamp pads
  - -sponge stampers
  - -scented crayons/markers
  - -Sketch-a-doodle
  - -glitter/fabric paints/bingo markers
  - -mini-paint rollers
  - -knob handled paintbrushes
  - -scented playdough
  - -battery-operated wiggle pens
  - -adapted/electric scissors
  - -electronic stapler
  - -wrist tape dispenser
  - -glue sticks/wikki stix
  - -alphabet/number/animal stencils
  - -braille writer
  - -APH writing trainer

Play Center

- Adaptive saucer switch
- Switch toys, such as
  - -Kaleidome with shapes
  - -Dome alone
  - -Ring around bells
  - -Musical spinning top
  - -Marching drum
- Battery-operated toys, such as
  - -various animals
  - -vibrating crab
  - -bump 'n go cars
  - -bumble balls
  - -roly poly toys
  - -talking alphabet ball
- Knob 3-D puzzles
- Large lego/bristle blocks
- Textured nestling cups
- Let's Learn soft shape box
- Melody lights
- Child Guidance light-up telephone
- Child Guidance musical light-up beads
- Somatosensory beads
- Nail dryer
- Leapfrog Express talking train
- V Tech Count 'n Go talking bug
- V Tech Little Smart talking phonics
- Fisher Price Intelli-table
- Casio musical keyboard
- Playskool magic musical rainbow
- Interactive games, such as
  - -Connect 4
  - -Mr. Potato Head
  - -Mr. Bucket
  - -Melvin
  - -Elefun
  - -Fishing
  - -Chicken Limbo
  - -Don't Break the Ice

Discovery Center

- Objects/activities related to current theme
- Science and nature items
- Sand and water table
- Bubble machine
- Fisher Price Peaceful Planet aquarium
- Fantasy Fish bowl
- Singing birds
- Switch operated
  - -Fans
  - -Aroma fan
  - -Big water mill toy
- Environmental control unit, to be connected to
  - -Hair dryer/blower
  - -Foot massage bathtub
  - -Vibrating mat/pillow

Reading/Listening Center

- Stories and props related to thematic unit
- Large print storybooks
- APH pre-braille books
- Big story books
- Golden sound story books
- Mattel talking ABC book
- Interactive books with velcro pieces
- Pop-up books
- Counting/rhyming/predictable pattern books
- Textured board/cloth books
- Step-by-Step voice output devices to record stories
- Adapted reading stands

Vision Center

- APH Light box with overlays
- APH Levels I - III materials
- Light box table
- APH Flashlight/penlight with colored discs
- APH Bright Sights materials
- Black light with glow-in-the-dark shapes
- Reflective pompoms
- Mylar balloons

Thematic Units can be taught on a weekly or monthly basis, dependent upon the attention span of your students. In my classroom, I have found that teaching units on a monthly basis is the most beneficial for my children with multiple disabilities. Theme-related activities are set up in our learning stations for the entire month, with the students rotating through them several times. Below is a list of our monthly themes for the year. They are based on thematic units in the local county curriculum for pre-school/kinder-garten with some adaptations to allow for more hands-on, functional and meaningful learning. (Note that since our school is a residential setting, our school year starts in August. We begin with a recap and closure of Summer, though you certainly could end your school year with an introduction into the season.)

August	Let's Go to the Beach
September	All About Me
October	Halloween
November	Fall Foods
December	Holidays We Celebrate
January	Winter Clothing
February	Dental Care
March	Wind
April	Animals on the Farm
May	Spring Flowers

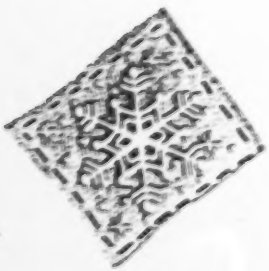
Here is a **sample of the multi-sensory activities** available to my children during the month of January as we discuss Winter Clothing.

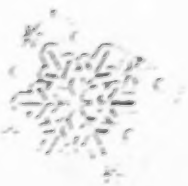
Language Center
-talk about Winter (cold outside, what to wear to keep warm)
-discuss Winter Clothing objects of the week(hat,glove,scarf,boot)
-pass around the group to explore
-velcro winter clothing onto large snowman

Writing Center
-activate adapted software ("Winter Fun"/"Let's Build a Snowman"/ "Winter Mouse") on computer with Intelli-keys touchpad and textured overlays
-match clothing props to narration of computer
-write story about walk in the snow and making mini-snowman via Intelli-talk program and touchpad

Play Center
-dress-up in Winter Clothing with Mickey Mouse doll
-activate bump 'n go penquin with adaptive switch
-play "Don't Break the Ice"
-push styrofoam snow with toy truck
-compare big and little snowmen

Discovery Center	-explore fluffy, soft, white textures (cotton balls, bath scrubbies) -activate animated snowman with adaptive switch and EC unit -smell pinecones fallen from trees -feel snow in ice chest -feel ice in ice bucket/ziplock bags -label temperature (It's cold!) on Big Mack voice-output device -make mini-snowman (with and without gloves) including two button eyes, carrot nose and licorice string mouth
Reading Center	-read "Frosty the Snowman" cloth storybook with interactive pieces -read "The Mitten" with giant mitten and animal props -read "Polar Bear, Polar Bear" pre-recorded story (w/ predictable pattern) using Step-by-Step voice-output device
Vision Center	-activate light box with snowman overlay via adaptive switch and environmental control unit -visually attend to musical snowman in blacklight box
Art Activity	-dress snowman in Winter Clothing -make glitter snowflakes with snowflake stamper
Cooking Activity	-make sno-cones with blender and environmental control unit
Field Trip	-walk outside in the snow wearing Winter Clothing





Keep in mind the following **accommodations for children with specific special needs.**

For children with visual impairments/blindness:

-Promote optimal use of vision with adjustable lighting (use of floor/desk lamps).

-Use contrast of work space via trays/placemats.

-Use contrast of materials, especially during cooking, discovery and art activities (use of light colored materials in/on dark colored containers/paper)

For children with hearing impairments/deafness:

-Use sound-absorbent materials and fabrics to reduce environmental noise clutter.

-Carpet entire floor when possible.

For children with physical impairments:

-Use optimal adaptive positioning in each learning center.

-Allow time out of wheelchair to explore.

-Investigate the use of low cube chairs to allow access to peers playing on floor.

-Use trays to carry materials to work surface.

For children with mental retardation/emotional handicaps:

-Use developmentally appropriate materials.

-Keep in mind age-appropriateness of materials/activities, especially for chronologically older students who are developmentally much younger.

-Keep work spaces consistent to offer a sense of order.

-Have a clear beginning and end to activity to reinforce predictable routines.

-Keep behavioral expectations consistent for emotional structure and to deter outbursts.

To **adapt the activities** in your learning centers for the young child with multiple disabilities, be creative. Think of fun multi-sensory experiences, involving all five senses. You don't have to necessarily spend alot of money. Many of my materials I have re-cycled from home or picked up at a yard sale or auction.

-Lightbox can be covered with a theme-related opaque placemat, window stickees or colorful suncatchers

-Simple theme-related computer programs can be made by you or your staff, using Intelli-pics and/or Boardmaker

-Picture recipes can be made by taping sequential steps from left-to-right on a sentence strip/slantboard

-Repeating phrases from books with predictable patterns can be pre-recorded and then played back by the student using a voice-output device

-The Pledge of Allegiance can be pre-recorded also on a voice-output device

-Battery-operated toys/games can be easily adapted using an inexpensive battery interruptor and attached to a switch (see "Creating a battery system")

-Virtually any electrical appliance can be plugged into an environmental control unit and then connected to a switch (see "Creating an electrical system").

In my class, we have used a popcorn popper, blender, cookie/salad shooter, food chopper, fan, paper shredder, foot bath, vibrating cushion/mat, radio, TV/VCR, tape recorder, lite-up mirror, nail dryer, paint spinner, etc...

Remember that your young students are KIDS FIRST!! Give them as many normal age-appropriate experiences on and off-campus as possible.

Using the Tools of the Trade

Creating a Battery System

When a battery-powered device is adapted for switch accessibility, it is called a "battery system." Creating a battery system is very easy. It requires the equipment listed below, connected as described in "What You Do."

What You Will Need

Battery-operated toy, game, or appliance

Battery device adapter (BDA)

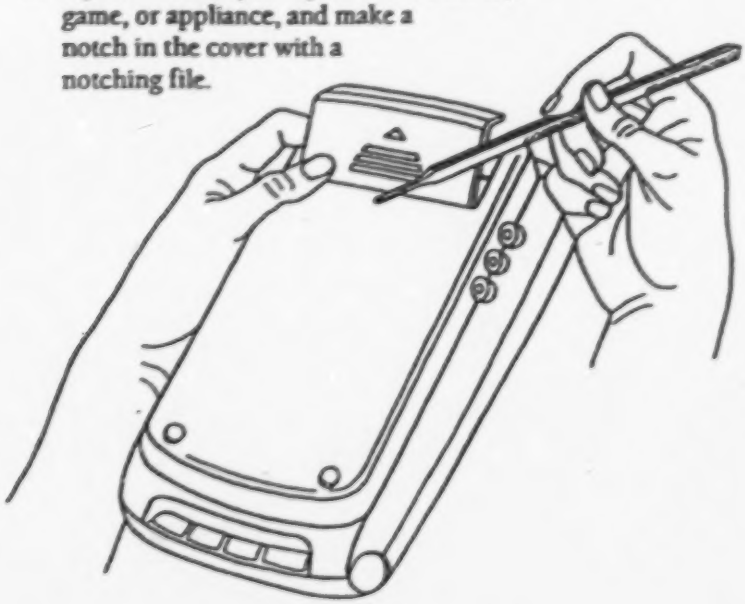
Notching file (optional)

Switch

Battery control unit

What You Do

1. Open the battery compartment of the toy, game, or appliance, and make a notch in the cover with a notching file.



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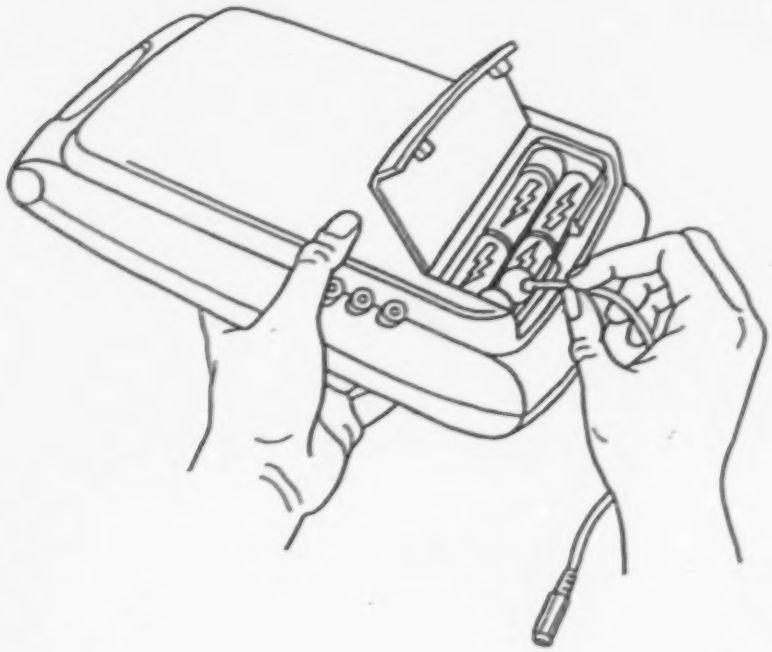
2. Insert the copper or metal disk of the battery device adapter between one end of the battery and one of the contacts on the toy. It does not matter if it is in the positive (+) or the negative (-) end of the battery. Close the compartment door carefully, positioning the cord so it comes through the notch.



3. Plug the battery control unit into the switch jack on the battery device adapter.
4. Plug the switch into the switch jack on the battery control unit.
5. Turn the device to the ON position. Some devices will need special adaptations to keep their switches in the ON position. Tape works well in most cases.

Creating an Electrical System

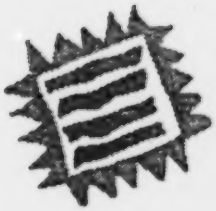
Creating an electrical system requires the use of the three pieces of equipment listed below, connected as described.

What You Will Need

Electrical control unit

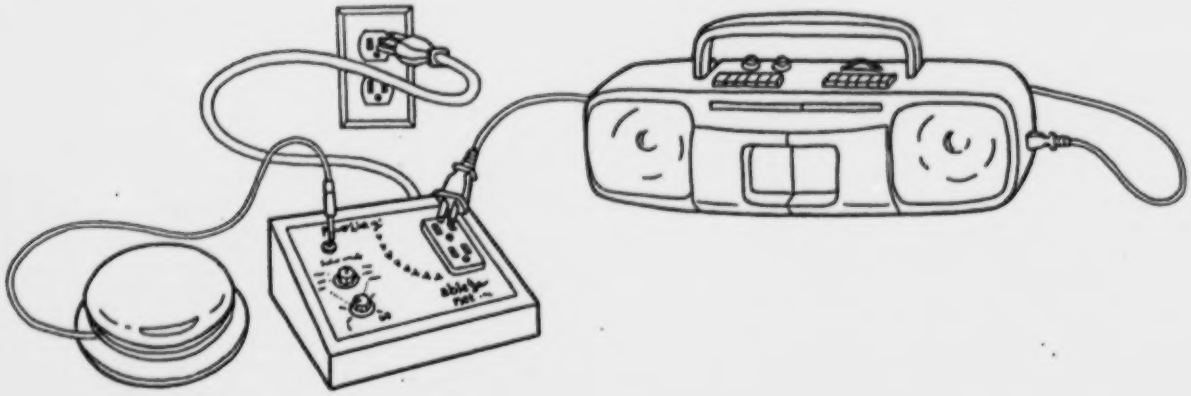
Electrically powered toy, game, or appliance

Switch



What You Do

1. Plug the toy, game, or appliance into the electrical control unit. Make sure the device is in the ON position. Some devices may need adaptations to keep their switches in the ON position.
2. Plug the control unit into a wall outlet.
3. Plug the auxiliary switch into the switch jack on the electrical control unit.



Book of Possibilities: Secondary Edition, © 1998 AbleNet, Inc.

RESOURCES

I. Books:

American Printing House for the Blind. Move...Touch...Do!
Drezek, 1995. Louisville, Ky.

Able-Net, Inc. Play & Learn.
Coleman & Krueger, 1999. Minneapolis, Minnesota.

Able-Net, Inc. A Book of Possibilities.
Canfield & Locke, 1996 (first ed.), 1998 (second ed.).
Minneapolis, Minnesota.

II. Magazines:

Able-Net, Inc. The Literary Experience.
2000-2001. Minneapolis, Minnesota.

III. Catalogs:

Enabling Devices/Toys for Special Children
385 Warburton Avenue
Hastings-on-Hudson, N.Y. 10706
(800) 832-8697
www.enablingdevices.com

Able-Net, Inc.
1081 10th Avenue S.E.
Minneapolis, Minnesota 55414-9788
(800) 322-0956
www.ablenetinc.com

IV. Kit:

American Printing House for the Blind. Making Picture Recipes.
1995 item # 1-03450-00